

the front cover plate 45. The front cover plate 45 shields the pivotal mechanism of elements 42 and 48 in the preferred embodiment but it is obvious that it is not essential to the utility of the invention.

FIGS. 3 and 3a illustrate in detail the first or forward inner gap shielding means 50 extending over the gap between the door edge 31' and the casing side wall 21'. The shield 50 comprises a generally rectangular panel 51 formed of a sheet of relatively stiff, but slightly flexible material such as heavy vinyl or polyvinyl stock. In the preferred embodiment one vertical edge 52 is securely fastened to the sidewall 21' and closure strip 24 of the casing. The opposite vertical edge 52' of the shield 50 is, in the preferred embodiment, slidably mounted behind a retaining means 55 on the front surface of the door near the hinged edge. The retaining means 55 as illustrated is a box-type receptacle formed of stock molding strips 56 overlying a stationary face panel 57, all of which are spaced slightly away from the door surface to form a channel 58 through which the shield 50 slides. When the door 30 is opened the shield 50 slides with respect to the retainer 55 to extend over the gap between the door and casing. As the door is closed, the shield 50 slides forwardly into the retainer 55. A plurality of slots 59 are cut into an intermediate portion of the panel 51 and are slidably mounted over retaining pins 54 which extend through strips 56 and into door 30 to prevent the panel 51 from slipping completely out of the retainer 55. The slots 59 are cut to a length sufficient to allow the door to open fully without being impeded by the shield panel 51.

The second or rearward shield means 60 illustrated in FIG. 4 comprises a flexible panel of sheet material such as used for the front shield 50. The shield 60 is a generally rectangular vertically elongated panel fixedly attached along one vertical edge 61 to the casing sidewall, and along the opposite vertical edge 62 to the rear surface of the door adjacent the hinged edge.

As an alternative approach to the checking device 40 the soft edge member 70 (FIG. 5) comprises an elongated portion of very soft rubber or plastic material insert along a substantial portion of the unhinged edge of the door. Although not limited to such height, the soft member 70 in the preferred embodiment extends downwardly at least from the door knob 80 to the lower edge of the door. To install the member 70, a selected portion of the door edge 31 is cut away and the member 70 mounted therein. The member 70 is formed of any inner piece 72 of foam material and a protective covering 74 of flexible plastic or textile material, attached at the edges to door 30. While foam is presently contemplated, it should be recognized that other materials such as rubber, or a hollow yieldable cap might be used with or without a protective covering. The soft edge 70 should be of approximately the same thickness and height dimensions as the edge portion removed from the door. When properly mounted the soft edge will significantly reduce the chances of injury due to catching a hand between the door and casing wall. From any angle a hand or finger may be extracted from between the yieldable bumper 70 and the casing wall 21. It is merely a matter of pushing the bumper aside and withdrawing the hand without injury.

The checking means 40 and the soft edge member 70 are both considered to be free side protective means for preventing closure of at least a major portion of the free side of the door panel against the casing 20. Therefore both are for the purpose of preventing injury when catching a hand or fingers between the free door side 31 and casing wall 21. Therefore ordinarily only one of those devices would be installed on the same door as they are alternative approaches. However, for illustrative purposes the door in FIG. 1 is shown with both devices 40 and 70 mounted thereon.

While a preferred embodiment of the present invention has been described herein other and further modifications may be made without department from the scope of the claims outlined below.

What is claimed is:

1. In combination with a door structure of the type including a casing or frame surrounding a door panel which is hinged along one side leaving the other side free to open and close, said door structure adapted for use in nurseries, kindergartens and the like, and including a plurality of protective devices therein including:

(a) a first shield means for covering the inner gap between the forward edge of the hinged side of the door and the casing, said first shield means comprising a vertically elongated, relatively stiff, but slightly flexible panel member having one lateral edge fixedly attached to said casing wall, a pocket means positioned on the inner surface of said door panel for retaining the opposite lateral edge of said flexible panel slidably within said pocket means, with the central area of the elongated panel covering said inner gap at all times during opening and closing of the door;

(b) a second shield means for covering the outer gap between the rear edge of the hinged side of the door and the casing, said second shield means comprising a vertically elongated, substantially flexible panel member having one lateral edge fixedly attached adjacent to the rear edge of the hinged side of the door and the opposite lateral edge attached to the door casing, the central portion of said panel member covering said outer gap at all times during opening and closing of the door;

(c) a free side protective means for preventing inadvertent closure of the free side of the door against the door casing;

(d) said free side protective means comprising a door stop means mounted to the front or inner surface of said door adjacent the upper portion of the free side thereof, said stop means including a checking element pivotally connected thereto for movement between a first cocked position and a second blocking position between the free side of the door and the casing;

(e) said checking element including a freely swinging member pivotally attached at one end about a pivot shaft, the center of said gravity in said cocked position being located above and toward the free side of said door from said pivot shaft and the edge of said swinging member resting against said casing whereby, upon opening of said door, said checking element drops to its second blocking position.

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